GenCore version 4.5

OM nucleic - nucleic search, using sw model

Run on: August 27, 2001, 15:40:57 ; Search time 193.18 Seconds
(without alignments)
1472.406 Million cell updates/sec

Title: US-09-784-340-3_COPY_18322_18774
Perfect score: 453
Sequence: 1 gtaagtactactgcttgtac.....tgtgtgtttttcccttccag 453

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 730101 seqs, 313950809 residues

Total number of hits satisfying chosen parameters: 1460202

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : N_Geneseq_0601:*
1: /SIDS1/gcgdata/geneseq/geneseqn/NA1980.DAT:*
2: /SIDS1/gcgdata/geneseq/geneseqn/NA1981.DAT:*
3: /SIDS1/gcgdata/geneseq/geneseqn/NA1982.DAT:*
4: /SIDS1/gcgdata/geneseq/geneseqn/NA1983.DAT:*
5: /SIDS1/gcgdata/geneseq/geneseqn/NA1984.DAT:*
6: /SIDS1/gcgdata/geneseq/geneseqn/NA1985.DAT:*
7: /SIDS1/gcgdata/geneseq/geneseqn/NA1986.DAT:*
8: /SIDS1/gcgdata/geneseq/geneseqn/NA1987.DAT:*
9: /SIDS1/gcgdata/geneseq/geneseqn/NA1988.DAT:*
10: /SIDS1/gcgdata/geneseq/geneseqn/NA1989.DAT:*
11: /SIDS1/gcgdata/geneseq/geneseqn/NA1990.DAT:*
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13: /SIDS1/gcgdata/geneseq/geneseqn/NA1992.DAT:*
14: /SIDS1/gcgdata/geneseq/geneseqn/NA1993.DAT:*
15: /SIDS1/gcgdata/geneseq/geneseqn/NA1994.DAT:*
16: /SIDS1/gcgdata/geneseq/geneseqn/NA1995.DAT:*
17: /SIDS1/gcgdata/geneseq/geneseqn/NA1996.DAT:*
18: /SIDS1/gcgdata/geneseq/geneseqn/NA1997.DAT:*
19: /SIDS1/gcgdata/geneseq/geneseqn/NA1998.DAT:*
20: /SIDS1/gcgdata/geneseq/geneseqn/NA1999.DAT:*
21: /SIDS1/gcgdata/geneseq/geneseqn/NA2000.DAT:*
22: /SIDS1/gcgdata/geneseq/geneseqn/NA2001.DAT:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Result No.	Score	% Query Match	Length	DB	ID	Description
c	1	105.6	23.3	936	22	AAF58252	Oligonucleotide D1
c	2	105.6	23.3	936	22	AAF58254	Oligonucleotide D1
c	3	105.6	23.3	936	22	AAF58257	Oligonucleotide D1
c	4	105.6	23.3	936	22	AAF58259	Oligonucleotide D2
c	5	105.6	23.3	936	22	AAF58262	Oligonucleotide D2
c	6	105.6	23.3	938	22	AAF58255	Oligonucleotide D1
	7	104	23.0	936	22	AAF58252	Oligonucleotide D1
	8	104	23.0	936	22	AAF58254	Oligonucleotide D1
	9	104	23.0	936	22	AAF58257	Oligonucleotide D1
	10	104	23.0	936	22	AAF58259	Oligonucleotide D2
	11	104	23.0	936	22	AAF58262	Oligonucleotide D2
	12	104	23.0	938	22	AAF58255	Oligonucleotide D1
c	13	57.2	12.6	244	22	AAF58238	Oligonucleotide D1
	14	53.2	11.7	244	22	AAF58238	Oligonucleotide D1
	15	43.2	9.5	611590	21	AAF22303	Arabidopsis thalia
	16	38	8.4	400	18	AAV75016	Staphylococcus aur
	17	38	8.4	14051	18	AAV74414	Staphylococcus aur
c	18	37.8	8.3	611590	21	AAF22303	Arabidopsis thalia
c	19	37.6	8.3	1378	21	AAC59645	Human secreted pro
c	20	37.6	8.3	1664976	19	AAV21209	Methanococcus jann
	21	37.2	8.2	926	21	AAA59489	DNA encoding Smad3
c	22	37.2	8.2	19124	18	AAT72882	Plasmodium var-7 g
c	23	37.2	8.2	19124	21	AAZ98287	Plasmodium var-7 p
c	24	37	8.2	1267	20	AAZ17188	Human gene express
	25	36.2	8.0	378	21	AAC99951	Human secreted pro
c	26	36.2	8.0	1422	19	AAV60073	Immunoreactive lam
	27	36.2	8.0	3129	20	AAX20285	Borrelia burgdorfe
	28	36	7.9	5454	21	AAA70189	Plasmodium falcipa
	29	36	7.9	9542	20	AAX20260	Borrelia burgdorfe
	30	36	7.9	163319	21	AAF22306	Arabidopsis thalia
	31	35.8	7.9	1380	21	AAA70124	Plasmodium falcipa
	32	35.8	7.9	2100	21	AAC59255	Human secreted pro
c	33	35.8	7.9	5058	20	AAX91106	Group B Streptococ
c	34	35.6	7.9	4968	21	AAZ55696	Heliothis armigera
	35	35.4	7.8	1758	20	AAZ27611	Mouse CXCR4 coding
	36	35.4	7.8	1877	19	AAV46370	Nucleic acid encod
c	37	35.4	7.8	910715	20	AAX20248	Borrelia burgdorfe
c	38	35.2	7.8	510	19	AAV28775	Human interleukin-
c	39	35.2	7.8	884	19	AAX14388	H. pylori GHPO 512
	40	34.8	7.7	887	21	AAC59382	Human secreted pro
	41	34.8	7.7	116277	20	AAX20249	Borrelia burgdorfe
c	42	34.6	7.6	1940	20	AAZ00850	Human secreted pro
c	43	34.4	7.6	1903	20	AAZ00830	Human secreted pro
c	44	34.4	7.6	3165	20	AAX99602	Nucleic acid seque
c	45	34.4	7.6	580073	18	AAT58840	Mycoplasma genital

ALIGNMENTS

RESULT 1
AAF58252/c
ID AAF58252 standard; DNA; 936 BP.
XX
AC AAF58252;
XX
DT 24-APR-2001 (first entry)
XX
DE Oligonucleotide D1835.
XX
KW Electron-transfer group; ETM; mismatch; genotyping;
KW gene expression; ss.
XX
OS Synthetic.
XX
PN WO200107665-A2.
XX
PD 01-FEB-2001.
XX
PF 26-JUL-2000; 2000WO-US20476.
XX
PR 26-JUL-1999; 99US-0145695.
PR 17-MAR-2000; 2000US-0190259.
XX
PA (CLIN-) CLINICAL MICRO SENSORS INC.
XX
PI Umek RM;
XX
DR WPI; 2001-159728/16.
XX
PT Nucleic acids containing electron-transfer group, useful as labels in
PT hybridization assays, e.g. for genotyping, allowing repeat analyses on
PT a single surface -
XX

PS Example 6; Page 127; 159pp; English.
XX
CC The present invention relates to a composition comprising two nucleic
CC acids each containing an electron-transfer group (ETM) having
CC different redox potentials. The invention is used for electronic
CC detection of nucleic acids, especially of substitutions (mismatches)
CC and single-nucleotide polymorphisms, e.g. for genotyping,
CC monitoring gene expression.
XX
SQ Sequence 936 BP; 4 A; 139 C; 10 G; 7 T; 776 other;

Query Match 23.3%; Score 105.6; DB 22; Length 936;
Best Local Similarity 1.4%; Pred. No. 5.1e-16;
Matches 6; Conservative 302; Mismatches 136; Indels 0; Gaps 0;

Qy 2 taagtactactgcttgtacagactgatctaacattgactatgttatacattataccagaa 61
Db 639 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWCWWWWWWWWWWWW 580

Qy 62 aatgttaaatatcatcctggtagacatgttgagggattttactccacaatattgagtcat 121
Db 579 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 520

Qy 122 tcatcaccttgttactggaatagttgtggaaattgtagttcatagagtgtcaaactttct 181
Db 519 WWWWWWWWWWWWWWWWWWWWWWWWWWWGWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 460

Qy 182 tcatggaaatattaggtttaagttaacaactggcttactaagcttttattcacatcttaa 241
Db 459 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 400

Qy 242 ttttaccccattttgttaagaatatactctttcagtctctccactatatctgtttaatac 301
Db 399 WWWTAAGCWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 340

Qy 302 tatgtaaccaacaatattcatgtcacaaccagaatcaatcttttactgaacatgttcttg 361
Db 339 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWGWWWWWWWWWWWW 280

Qy 362 gcttgcataacatatactacggtttatctacgtgtctttttatgaaaacaaaactacaact 421
Db 279 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 220

Qy 422 ttctaagttctatgtgtgtttttc 445
Db 219 WWWWWWWWWWWWWWWWWWWWWWWC 196

RESULT 2
AAF58254/c
ID AAF58254 standard; DNA; 936 BP.
XX
AC AAF58254;
XX
DT 24-APR-2001 (first entry)
XX
DE Oligonucleotide D1875.
XX
KW Electron-transfer group; ETM; mismatch; genotyping;
KW gene expression; ss.
XX
OS Synthetic.
XX
PN WO200107665-A2.
XX
PD 01-FEB-2001.
XX
PF 26-JUL-2000; 2000WO-US20476.
XX
PR 26-JUL-1999; 99US-0145695.
PR 17-MAR-2000; 2000US-0190259.
XX

PA (CLIN-) CLINICAL MICRO SENSORS INC.
XX
PI Umek RM;
XX
DR WPI; 2001-159728/16.
XX
PT Nucleic acids containing electron-transfer group, useful as labels in
PT hybridization assays, e.g. for genotyping, allowing repeat analyses on
PT a single surface -
XX
PS Example 6; Page 127; 159pp; English.
XX
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CC acids each containing an electron-transfer group (ETM) having
CC different redox potentials. The invention is used for electronic
CC detection of nucleic acids, especially of substitutions (mismatches)
CC and single-nucleotide polymorphisms, e.g. for genotyping,
CC monitoring gene expression.
XX
SQ Sequence 936 BP; 4 A; 144 C; 7 G; 5 T; 776 other;

Query Match 23.3%; Score 105.6; DB 22; Length 936;
Best Local Similarity 1.4%; Pred. No. 5.1e-16;
Matches 6; Conservative 302; Mismatches 136; Indels 0; Gaps 0;

Qy 2 taagtactactgcttgtacagactgatctaacattgactatgttatacattataccagaa 61
Db 639 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWCWWWWWWWWWWWW 580

Qy 62 aatgttaaatatcatcctggtagacatgttgagggattttactccacaatattgagtcat 121
Db 579 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 520

Qy 122 tcatcaccttgttactggaatagttgtggaaattgtagttcatagagtgtcaaactttct 181
Db 519 WWWWWWWWWWWWWWWWWWWWWWWWWWWGWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 460

Qy 182 tcatggaaatattaggtttaagttaacaactggcttactaagcttttattcacatcttaa 241
Db 459 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 400

Qy 242 ttttaccccattttgttaagaatatactctttcagtctctccactatatctgtttaatac 301
Db 399 WWWTAAGCWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 340

Qy 302 tatgtaaccaacaatattcatgtcacaaccagaatcaatcttttactgaacatgttcttg 361
Db 339 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWGWWWWWWWWWWWW 280

Qy 362 gcttgcataacatatactacggtttatctacgtgtctttttatgaaaacaaaactacaact 421
Db 279 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 220

Qy 422 ttctaagttctatgtgtgtttttc 445
Db 219 WWWWWWWWWWWWWWWWWWWWWWWC 196

RESULT 3
AAF58257/c
ID AAF58257 standard; DNA; 936 BP.
XX
AC AAF58257;
XX
DT 24-APR-2001 (first entry)
XX
DE Oligonucleotide D1954.
XX
KW Electron-transfer group; ETM; mismatch; genotyping;
KW gene expression; ss.
XX
OS Synthetic.

```
XX
PN   WO200107665-A2.
XX
PD   01-FEB-2001.
XX
PF   26-JUL-2000; 2000WO-US20476.
XX
PR   26-JUL-1999;   99US-0145695.
PR   17-MAR-2000; 2000US-0190259.
XX
PA   (CLIN-) CLINICAL MICRO SENSORS INC.
XX
PI   Umek RM;
XX
DR   WPI; 2001-159728/16.
XX
PT   Nucleic acids containing electron-transfer group, useful as labels in
PT   hybridization assays, e.g. for genotyping, allowing repeat analyses on
PT   a single surface -
XX
PS   Example 6; Page 127; 159pp; English.
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CC   different redox potentials. The invention is used for electronic
CC   detection of nucleic acids, especially of substitutions (mismatches)
CC   and single-nucleotide polymorphisms, e.g. for genotyping,
CC   monitoring gene expression.
XX
SQ   Sequence 936 BP; 5 A; 142 C; 7 G; 6 T; 776 other;

  Query Match             23.3%;  Score 105.6;  DB 22;  Length 936;
  Best Local Similarity   1.4%;  Pred. No. 5.1e-16;
  Matches    6;  Conservative  302;  Mismatches  136;  Indels    0;  Gaps    0;

Qy       2 taagtactactgcttgtacagactgatctaacattgactatgttatacattataccagaa 61
Db     639 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWCWWWWWWWWWWW 580

Qy      62 aatgttaaatatcatcctggtagacatgttgagggatttttactccacaatattgagtcat 121
Db     579 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 520

Qy     122 tcatcaccttgttactggaatagttgtggaaattgtagttcatagagtgtcaaactttct 181
Db     519 WWWWWWWWWWWWWWWWWWWWWWWWWWWGWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 460

Qy     182 tcatggaaatattaggtttaagttaacaactggcttactaagcttttattcacatcttaa 241
Db     459 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 400

Qy     242 ttttaccccattttgttaagaatatactctttcagtctctccactatatctgtttaatac 301
Db     399 WWWTAAGCWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 340

Qy     302 tatgtaaccaacaatattcatgtcacaaccagaatcaatcttttactgaacatgttcttg 361
Db     339 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWGWWWWWWWWWWWW 280

Qy     362 gcttgcataacatatactacggtttatctacgtgtcttttatgaaaacaaaactacaact 421
Db     279 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 220

Qy     422 ttctaagttctatgtgtgtttttc 445
Db     219 WWWWWWWWWWWWWWWWWWWWWWWC 196


RESULT   4
AAF58259/c
ID   AAF58259 standard; DNA; 936 BP.
XX
AC   AAF58259;
XX
DT   24-APR-2001  (first entry)
XX
DE   Oligonucleotide D2004.
XX
KW   Electron-transfer group; ETM; mismatch; genotyping;
KW   gene expression; ss.
XX
OS   Synthetic.
XX
PN   WO200107665-A2.
XX
PD   01-FEB-2001.
XX
PF   26-JUL-2000; 2000WO-US20476.
XX
PR   26-JUL-1999;   99US-0145695.
PR   17-MAR-2000; 2000US-0190259.
XX
PA   (CLIN-) CLINICAL MICRO SENSORS INC.
XX
PI   Umek RM;
XX
DR   WPI; 2001-159728/16.
XX
PT   Nucleic acids containing electron-transfer group, useful as labels in
PT   hybridization assays, e.g. for genotyping, allowing repeat analyses on
PT   a single surface -
XX
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CC   detection of nucleic acids, especially of substitutions (mismatches)
CC   and single-nucleotide polymorphisms, e.g. for genotyping,
CC   monitoring gene expression.
XX
SQ   Sequence 936 BP; 6 A; 138 C; 8 G; 8 T; 776 other;

  Query Match             23.3%;  Score 105.6;  DB 22;  Length 936;
  Best Local Similarity   1.4%;  Pred. No. 5.1e-16;
  Matches    6;  Conservative  302;  Mismatches  136;  Indels    0;  Gaps    0;

Qy       2 taagtactactgcttgtacagactgatctaacattgactatgttatacattataccagaa 61
Db     639 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWCWWWWWWWWWWW 580

Qy      62 aatgttaaatatcatcctggtagacatgttgagggatttttactccacaatattgagtcat 121
Db     579 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 520

Qy     122 tcatcaccttgttactggaatagttgtggaaattgtagttcatagagtgtcaaactttct 181
Db     519 WWWWWWWWWWWWWWWWWWWWWWWWWWWGWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 460

Qy     182 tcatggaaatattaggtttaagttaacaactggcttactaagcttttattcacatcttaa 241
Db     459 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 400

Qy     242 ttttaccccattttgttaagaatatactctttcagtctctccactatatctgtttaatac 301
Db     399 WWWTAAGCWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 340

Qy     302 tatgtaaccaacaatattcatgtcacaaccagaatcaatcttttactgaacatgttcttg 361
Db     339 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWGWWWWWWWWWWWW 280

Qy     362 gcttgcataacatatactacggtttatctacgtgtcttttatgaaaacaaaactacaact 421
Db     279 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 220
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Qy    422 ttctaagttctatgtgtgtttttc 445
          :: ::: :: ::: : : ::::::|
Db    219 WWWWWWWWWWWWWWWWWWWWWWWC 196
```

RESULT 5
AAF58262/c
ID AAF58262 standard; DNA; 936 BP.
XX
AC AAF58262;
XX
DT 24-APR-2001 (first entry)
XX
DE Oligonucleotide D2007.
XX
KW Electron-transfer group; ETM; mismatch; genotyping;
KW gene expression; ss.
XX
OS Synthetic.
XX
PN WO200107665-A2.
XX
PD 01-FEB-2001.
XX
PF 26-JUL-2000; 2000WO-US20476.
XX
PR 26-JUL-1999; 99US-0145695.
PR 17-MAR-2000; 2000US-0190259.
XX
PA (CLIN-) CLINICAL MICRO SENSORS INC.
XX
PI Umek RM;
XX
DR WPI; 2001-159728/16.
XX
PT Nucleic acids containing electron-transfer group, useful as labels in
PT hybridization assays, e.g. for genotyping, allowing repeat analyses on
PT a single surface -
XX
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CC acids each containing an electron-transfer group (ETM) having
CC different redox potentials. The invention is used for electronic
CC detection of nucleic acids, especially of substitutions (mismatches)
CC and single-nucleotide polymorphisms, e.g. for genotyping,
CC monitoring gene expression.
XX
SQ Sequence 936 BP; 5 A; 139 C; 10 G; 6 T; 776 other;

Query Match 23.3%; Score 105.6; DB 22; Length 936;
Best Local Similarity 1.4%; Pred. No. 5.1e-16;
Matches 6; Conservative 302; Mismatches 136; Indels .0; Gaps 0;

```
Qy      2 taagtactactgcttgtacagactgatctaacattgactatgttatacattataccagaa 61
          ::: :: :: :  :: :: : : : :: ::: ::: : ::: :::::|::::::  : ::
Db    639 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWCWWWWWWWWWWW 580

Qy     62 aatgttaaatatcatcctggtagacatgttgagggattttactccacaatattgagtcat 121
          ::: :::::::: ::  :  :: : :: :: :   :::::: :  : :::::: : : ::
Db    579 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 520

Qy    122 tcatcaccttgttactggaatagttgtggaaattgtagttcatagagtgtcaaactttct 181
          : :: :  :: ::: :  :::: ::|:  ::::: :: :: ::: : : : ::: ::: :
Db    519 WWWWWWWWWWWWWWWWWWWWWWWWGWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 460

Qy    182 tcatggaaatattaggtttaagttaacaactggcttactaagcttttattcacatcttaa 241
          : ::  ::::::::  ::::: :::: :: :   ::: :::  :::::::: : :: ::::
Db    459 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 400

Qy    242 ttttaccccatttttgttaagaatatactctttcagtctctccactatatctgtttaatac 301
          :::||  | ::::: :::: :::::: : ::: : : : :  : ::::: : :::::::
Db    399 WWWTAAGCWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 340

Qy    302 tatgtaaccaacaatattcatgtcacaaccagaatcaatcttttactgaacatgttcttg 361
          ::: :::  :: ::::::: :: : : ::  : ::: ::: ::::: : :: :: :: ::
Db    339 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 280

Qy    362 gcttgcataacatatactacggtttatctacgtgtcttt tgaaaacaaaactacaact 421
          ::  :::: ::::: ::   ::::: ::  : : ::: :: :::: :::: :: :: :
Db    279 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 220

Qy    422 ttctaagttctatgtgtgtttttc 445
          :: ::: :: ::: : : ::::::|
Db    219 WWWWWWWWWWWWWWWWWWWWWWWC 196
```

RESULT 6
AAF58255/c
ID AAF58255 standard; DNA; 938 BP.
XX
AC AAF58255;
XX
DT 24-APR-2001 (first entry)
XX
DE Oligonucleotide D1876.
XX
KW Electron-transfer group; ETM; mismatch; genotyping;
KW gene expression; ss.
XX
OS Synthetic.
XX
PN WO200107665-A2.
XX
PD 01-FEB-2001.
XX
PF 26-JUL-2000; 2000WO-US20476.
XX
PR 26-JUL-1999; 99US-0145695.
PR 17-MAR-2000; 2000US-0190259.
XX
PA (CLIN-) CLINICAL MICRO SENSORS INC.
XX
PI Umek RM;
XX
DR WPI; 2001-159728/16.
XX
PT Nucleic acids containing electron-transfer group, useful as labels in
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CC different redox potentials. The invention is used for electronic
CC detection of nucleic acids, especially of substitutions (mismatches)
CC and single-nucleotide polymorphisms, e.g. for genotyping,
CC monitoring gene expression.
XX
SQ Sequence 938 BP; 4 A; 144 C; 9 G; 5 T; 776 other;

Query Match 23.3%; Score 105.6; DB 22; Length 938;
Best Local Similarity 1.4%; Pred. No. 5.1e-16;
Matches 6; Conservative 302; Mismatches 136; Indels 0; Gaps 0;

```
Qy      2 taagtactactgcttgtacagactgatctaacattgactatgttatacattataccagaa 61
          ::: :: :: :  :: :: : : : :: ::: ::: : ::: :::::|::::::  : ::
Db    639 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWCWWWWWWWWWWW 580

Qy     62 aatgttaaatatcatcctggtagacatgttgagggattttactccacaatattgagtcat 121
          ::: :::::::: ::  :  :: : :: :: :   :::::: :  : :::::: : : ::
Db    579 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 520
```

```
Qy    122 tcatcaccttgttactggaatagttgtggaaattgtagttcatagagtgtcaaactttct 181
          : :: :  :: ::: :  :::: ::|:  ::::: :: :: ::: : : : ::: ::: :
Db    519 WWWWWWWWWWWWWWWWWWWWWWWWWWGWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 460

Qy    182 tcatggaaatattaggtttaagttaacaactggcttactaagcttttattcacatcttaa 241
          : ::  :::::::: ::::: :::: :: :  ::: :::  :::::::: : :: ::::
Db    459 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 400

Qy    242 ttttaccccattttgttaagaatatactctttcagtctctccactatatctgtttaatac 301
          :::||  | ::::: :::: :::::: : ::: : : : :  : ::::: : :::::::
Db    399 WWWTAAGCWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 340

Qy    302 tatgtaaccaacaatattcatgtcacaaccagaatcaatcttttactgaacatgttcttg 361
          ::: :::  :: :::::: :: : : ::  : ::: ::: ::::: : :: :: :: ::
Db    339 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWGWWWWWWWWWWWW 280

Qy    362 gcttgcataacatatactacggtttatctacgtgtcttttatgaaaacaaaactacaact 421
            ::  :::: ::::: ::   ::::: :: : : :::::: :::: :::: :: :: :
Db    279 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 220

Qy    422 ttctaagttctatgtgtgtttttc 445
          :: ::: :: ::: : : :::::|
Db    219 WWWWWWWWWWWWWWWWWWWWWWC 196
```

RESULT 7
AAF58252
ID AAF58252 standard; DNA; 936 BP.
XX
AC AAF58252;
XX
DT 24-APR-2001 (first entry)
XX
DE Oligonucleotide D1835.
XX
KW Electron-transfer group; ETM; mismatch; genotyping;
KW gene expression; ss.
XX
OS Synthetic.
XX
PN WO200107665-A2.
XX
PD 01-FEB-2001.
XX
PF 26-JUL-2000; 2000WO-US20476.
XX
PR 26-JUL-1999; 99US-0145695.
PR 17-MAR-2000; 2000US-0190259.
XX
PA (CLIN-) CLINICAL MICRO SENSORS INC.
XX
PI Umek RM;
XX
DR WPI; 2001-159728/16.
XX
PT Nucleic acids containing electron-transfer group, useful as labels in
PT hybridization assays, e.g. for genotyping, allowing repeat analyses on
PT a single surface -
XX
PS Example 6; Page 127; 159pp; English.
XX
CC The present invention relates to a composition comprising two nucleic
CC acids each containing an electron-transfer group (ETM) having
CC different redox potentials. The invention is used for electronic
CC detection of nucleic acids, especially of substitutions (mismatches)
CC and single-nucleotide polymorphisms, e.g. for genotyping,
CC monitoring gene expression.
XX
SQ Sequence 936 BP; 4 A; 139 C; 10 G; 7 T; 776 other;

Query Match 23.0%; Score 104; DB 22; Length 936;

Best Local Similarity 1.1%; Pred. No. 1.2e-15;
Matches 5; Conservative 302; Mismatches 137; Indels 0; Gaps 0;

```
Qy      2 taagtactactgcttgtacagactgatctaacattgactatgttatacattataccagaa 61
          ::: :: :: :  :: :: : : : :: ::: ::: : ::: :::::|::::::  : ::
Db    247 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 306

Qy     62 aatgttaaatatcatcctggtagacatgttgagggattttactccacaatattgagtcat 121
          ::: :::::::: ::  :  :: : :: :: :   :::::: :  : :::::: : : ::
Db    307 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 366

Qy    122 tcatcaccttgttactggaatagttgtggaaattgtagttcatagagtgtcaaactttct 181
          : :: :  :: ::: :  :::: ::|   |:::: :: :: ::: : : : ::: ::: :
Db    367 wwwwwwwwwwwwwwwwwwwwwwwwwwwgcttawwwwwwwwwwwwwwwwwwwwwwwwww 426

Qy    182 tcatggaaatattaggtttaagttaacaactggcttactaagcttttattcacatcttaa 241
          : ::  :::::::: ::::: :::: :: :  ::: :::  :::::::: : :: ::::
Db    427 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 486

Qy    242 ttttaccccattttgttaagaatatactctttcagtctctccactatatctgtttaatac 301
          :::::  | ::::: :::: :::::: : ::: : : : :  : ::::: : :::::::
Db    487 wwwwwwwcwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 546

Qy    302 tatgtaaccaacaatattcatgtcacaaccagaatcaatcttttactgaacatgttcttg 361
          ::: :::  :: :::::: :: : : ::  : ::: ::: ::::: : :: :: :: ::
Db    547 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwgwwwwwwww 606

Qy    362 gcttgcataacatatactacggtttatctacgtgtcttttatgaaaacaaaactacaact 421
            ::  :::: ::::: ::   ::::: :: : : :::::: :::: :::: :: :: :
Db    607 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 666

Qy    422 ttctaagttctatgtgtgtttttc 445
          :: ::: :: ::: : : :::::|
Db    667 wwwwwwwwwwwwwwwwwwwwwwc 690
```

RESULT 8
AAF58254
ID AAF58254 standard; DNA; 936 BP.
XX
AC AAF58254;
XX
DT 24-APR-2001 (first entry)
XX
DE Oligonucleotide D1875.
XX
KW Electron-transfer group; ETM; mismatch; genotyping;
KW gene expression; ss.
XX
OS Synthetic.
XX
PN WO200107665-A2.
XX
PD 01-FEB-2001.
XX
PF 26-JUL-2000; 2000WO-US20476.
XX
PR 26-JUL-1999; 99US-0145695.
PR 17-MAR-2000; 2000US-0190259.
XX
PA (CLIN-) CLINICAL MICRO SENSORS INC.
XX
PI Umek RM;
XX
DR WPI; 2001-159728/16.
XX
PT Nucleic acids containing electron-transfer group, useful as labels in
PT hybridization assays, e.g. for genotyping, allowing repeat analyses on
PT a single surface -
XX
PS Example 6; Page 127; 159pp; English.
XX
CC The present invention relates to a composition comprising two nucleic

```
CC   acids each containing an electron-transfer group (ETM) having
CC   different redox potentials. The invention is used for electronic
CC   detection of nucleic acids, especially of substitutions (mismatches)
CC   and single-nucleotide polymorphisms, e.g. for genotyping,
CC   monitoring gene expression.
XX
SQ   Sequence 936 BP; 4 A; 144 C; 7 G; 5 T; 776 other;


  Query Match             23.0%;  Score 104;  DB 22;  Length 936;
  Best Local Similarity   1.1%;  Pred. No. 1.2e-15;
  Matches    5;  Conservative  302;  Mismatches  137;  Indels    0;  Gaps    0;

Qy       2 taagtactactgcttgtacagactgatctaacattgactatgttatacattataccagaa 61
Db     247 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwcwwwwwwwwwwww 306

Qy      62 aatgttaaatatcatcctggtagacatgttgagggattttactccacaatattgagtcat 121
Db     307 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 366

Qy     122 tcatcaccttgttactggaatagttgtggaaattgtagttcatagagtgtcaaactttct 181
Db     367 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwgcttawwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 426

Qy     182 tcatggaaatattaggtttaagttaacaactggcttactaagcttttattcacatcttaa 241
Db     427 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 486

Qy     242 ttttaccccattttgttaagaatatactctttcagtctctccactatatctgtttaatac 301
Db     487 wwwwwwwwcwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 546

Qy     302 tatgtaaccaacaatattcatgtcacaaccagaatcaatcttttactgaacatgttcttg 361
Db     547 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwgwwwwwwwwwwwww 606

Qy     362 gcttgcataacatatactacggtttatctacgtgtcttttatgaaaacaaaactacaact 421
Db     607 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 666

Qy     422 ttctaagttctatgtgtgtttttc 445
Db     667 wwwwwwwwwwwwwwwwwwwwwwwc 690


RESULT   9
AAF58257
ID   AAF58257 standard; DNA; 936 BP.
XX
AC   AAF58257;
XX
DT   24-APR-2001  (first entry)
XX
DE   Oligonucleotide D1954.
XX
KW   Electron-transfer group; ETM; mismatch; genotyping;
KW   gene expression; ss.
XX
OS   Synthetic.
XX
PN   WO200107665-A2.
XX
PD   01-FEB-2001.
XX
PF   26-JUL-2000; 2000WO-US20476.
XX
PR   26-JUL-1999;   99US-0145695.
PR   17-MAR-2000; 2000US-0190259.
XX
PA   (CLIN-) CLINICAL MICRO SENSORS INC.
XX
PI   Umek RM;
XX
DR   WPI; 2001-159728/16.
XX
PT   Nucleic acids containing electron-transfer group, useful as labels in
PT   hybridization assays, e.g. for genotyping, allowing repeat analyses on
PT   a single surface -
XX
PS   Example 6; Page 127; 159pp; English.
XX
CC   The present invention relates to a composition comprising two nucleic
CC   acids each containing an electron-transfer group (ETM) having
CC   different redox potentials. The invention is used for electronic
CC   detection of nucleic acids, especially of substitutions (mismatches)
CC   and single-nucleotide polymorphisms, e.g. for genotyping,
CC   monitoring gene expression.
XX
SQ   Sequence 936 BP; 5 A; 142 C; 7 G; 6 T; 776 other;


  Query Match             23.0%;  Score 104;  DB 22;  Length 936;
  Best Local Similarity   1.1%;  Pred. No. 1.2e-15;
  Matches    5;  Conservative  302;  Mismatches  137;  Indels    0;  Gaps    0;

Qy       2 taagtactactgcttgtacagactgatctaacattgactatgttatacattataccagaa 61
Db     247 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwcwwwwwwwwwwww 306

Qy      62 aatgttaaatatcatcctggtagacatgttgagggattttactccacaatattgagtcat 121
Db     307 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 366

Qy     122 tcatcaccttgttactggaatagttgtggaaattgtagttcatagagtgtcaaactttct 181
Db     367 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwgcttawwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 426

Qy     182 tcatggaaatattaggtttaagttaacaactggcttactaagcttttattcacatcttaa 241
Db     427 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 486

Qy     242 ttttaccccattttgttaagaatatactctttcagtctctccactatatctgtttaatac 301
Db     487 wwwwwwwwcwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 546

Qy     302 tatgtaaccaacaatattcatgtcacaaccagaatcaatcttttactgaacatgttcttg 361
Db     547 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwgwwwwwwwwwwwww 606

Qy     362 gcttgcataacatatactacggtttatctacgtgtcttttatgaaaacaaaactacaact 421
Db     607 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 666

Qy     422 ttctaagttctatgtgtgtttttc 445
Db     667 wwwwwwwwwwwwwwwwwwwwwwwc 690


RESULT  10
AAF58259
ID   AAF58259 standard; DNA; 936 BP.
XX
AC   AAF58259;
XX
DT   24-APR-2001  (first entry)
XX
DE   Oligonucleotide D2004.
XX
KW   Electron-transfer group; ETM; mismatch; genotyping;
KW   gene expression; ss.
XX
OS   Synthetic.
XX
PN   WO200107665-A2.
XX
```

PD 01-FEB-2001.
XX
PF 26-JUL-2000; 2000WO-US20476.
XX
PR 26-JUL-1999; 99US-0145695.
PR 17-MAR-2000; 2000US-0190259.
XX
PA (CLIN-) CLINICAL MICRO SENSORS INC.
XX
PI Umek RM;
XX
DR WPI; 2001-159728/16.
XX
PT Nucleic acids containing electron-transfer group, useful as labels in
PT hybridization assays, e.g. for genotyping, allowing repeat analyses on
PT a single surface -
XX
PS Example 6; Page 128; 159pp; English.
XX
CC The present invention relates to a composition comprising two nucleic
CC acids each containing an electron-transfer group (ETM) having
CC different redox potentials. The invention is used for electronic
CC detection of nucleic acids, especially of substitutions (mismatches)
CC and single-nucleotide polymorphisms, e.g. for genotyping,
CC monitoring gene expression.
XX
SQ Sequence 936 BP; 6 A; 138 C; 8 G; 8 T; 776 other;

Query Match 23.0%; Score 104; DB 22; Length 936;
Best Local Similarity 1.1%; Pred. No. 1.2e-15;
Matches 5; Conservative 302; Mismatches 137; Indels 0; Gaps 0;

RESULT 11
AAF58262
ID AAF58262 standard; DNA; 936 BP.
XX
AC AAF58262;
XX
DT 24-APR-2001 (first entry)

XX
DE Oligonucleotide D2007.
XX
KW Electron-transfer group; ETM; mismatch; genotyping;
KW gene expression; ss.
XX
OS Synthetic.
XX
PN WO200107665-A2.
XX
PD 01-FEB-2001.
XX
PF 26-JUL-2000; 2000WO-US20476.
XX
PR 26-JUL-1999; 99US-0145695.
PR 17-MAR-2000; 2000US-0190259.
XX
PA (CLIN-) CLINICAL MICRO SENSORS INC.
XX
PI Umek RM;
XX
DR WPI; 2001-159728/16.
XX
PT Nucleic acids containing electron-transfer group, useful as labels in
PT hybridization assays, e.g. for genotyping, allowing repeat analyses on
PT a single surface -
XX
PS Example 6; Page 128; 159pp; English.
XX
CC The present invention relates to a composition comprising two nucleic
CC acids each containing an electron-transfer group (ETM) having
CC different redox potentials. The invention is used for electronic
CC detection of nucleic acids, especially of substitutions (mismatches)
CC and single-nucleotide polymorphisms, e.g. for genotyping,
CC monitoring gene expression.
XX
SQ Sequence 936 BP; 5 A; 139 C; 10 G; 6 T; 776 other;

Query Match 23.0%; Score 104; DB 22; Length 936;
Best Local Similarity 1.1%; Pred. No. 1.2e-15;
Matches 5; Conservative 302; Mismatches 137; Indels 0; Gaps 0;

```
Db    667 wwwwwwwwwwwwwwwwwwwwwwwc 690


RESULT 12
AAF58255
ID   AAF58255 standard; DNA; 938 BP.
XX
AC   AAF58255;
XX
DT   24-APR-2001  (first entry)
XX
DE   Oligonucleotide D1876.
XX
KW   Electron-transfer group; ETM; mismatch; genotyping;
KW   gene expression; ss.
XX
OS   Synthetic.
XX
PN   WO200107665-A2.
XX
PD   01-FEB-2001.
XX
PF   26-JUL-2000; 2000WO-US20476.
XX
PR   26-JUL-1999;   99US-0145695.
PR   17-MAR-2000; 2000US-0190259.
XX
PA   (CLIN-) CLINICAL MICRO SENSORS INC.
XX
PI   Umek RM;
XX
DR   WPI; 2001-159728/16.
XX
PT   Nucleic acids containing electron-transfer group, useful as labels in
PT   hybridization assays, e.g. for genotyping, allowing repeat analyses on
PT   a single surface -
XX
PS   Example 6; Page 127; 159pp; English.
XX
CC   The present invention relates to a composition comprising two nucleic
CC   acids each containing an electron-transfer group (ETM) having
CC   different redox potentials. The invention is used for electronic
CC   detection of nucleic acids, especially of substitutions (mismatches)
CC   and single-nucleotide polymorphisms, e.g. for genotyping,
CC   monitoring gene expression.
XX
SQ   Sequence 938 BP; 4 A; 144 C; 9 G; 5 T; 776 other;


  Query Match             23.0%;  Score 104;  DB 22;  Length 938;
  Best Local Similarity   1.1%;  Pred. No. 1.2e-15;
  Matches    5;  Conservative  302;  Mismatches  137;  Indels    0;  Gaps    0;

Qy      2 taagtactactgcttgtacagactgatctaacattgactatgttatacattataccagaa 61
          ::: :: :: :  :: :: : : : :: ::: ::: : ::: :::::|::::::  : ::
Db    247 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwcwwwwwwwwwwwww 306

Qy     62 aatgttaaatatcatcctggtagacatgttgagggattttactccacaatattgagtcat 121
          ::: :::::::: ::  :  :: : :: :: :   :::::: :  : :::::: : : ::
Db    307 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 366

Qy    122 tcatcaccttgttactggaatagttgtggaaattgtagttcatagagtgtcaaactttct 181
          : :: :  :: ::: :  :::: ::|   |:::: :: :: ::: : : : ::: ::: :
Db    367 wwwwwwwwwwwwwwwwwwwwwwwwwgcttawwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 426

Qy    182 tcatggaaatattaggtttaagttaacaactggcttactaagcttttattcacatcttaa 241
          : ::  :::::::::  ::::: :::: :: :   ::: :::  :::::::: : :: ::::
Db    427 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 486

Qy    242 ttttaccccattttgttaagaatatactctttcagtctctccactatatctgtttaatac 301
          :::::  | ::::: :::: :::::: : ::: : : : :  : ::::: : :::::::
Db    487 wwwwwwwcwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 546
```

```
Qy    302 tatgtaaccaacaatattcatgtcacaaccagaatcaatcttttactgaacatgttcttg 361
          ::: :::  :: :::::: :: : : ::  : ::: ::: ::::: : :: :: :: ::
Db    547 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwgwwwwwwwwwwwwww 606

Qy    362 gcttgcataacatatactacggtttatctacgtgtctttttatgaaaacaaaactacaact 421
            ::  :::: ::::: ::   ::::: ::  : : :::::: :::: :::: :: :: :
Db    607 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 666

Qy    422 ttctaagttctatgtgtgtttttc 445
          :: ::: :: ::: : : :::::|
Db    667 wwwwwwwwwwwwwwwwwwwwwwwc 690


RESULT 13
AAF58238/c
ID   AAF58238 standard; DNA; 244 BP.
XX
AC   AAF58238;
XX
DT   24-APR-2001  (first entry)
XX
DE   Oligonucleotide D1250:D1102.
XX
KW   Electron-transfer group; ETM; mismatch; genotyping;
KW   gene expression; ss.
XX
OS   Synthetic.
XX
PN   WO200107665-A2.
XX
PD   01-FEB-2001.
XX
PF   26-JUL-2000; 2000WO-US20476.
XX
PR   26-JUL-1999;   99US-0145695.
PR   17-MAR-2000; 2000US-0190259.
XX
PA   (CLIN-) CLINICAL MICRO SENSORS INC.
XX
PI   Umek RM;
XX
DR   WPI; 2001-159728/16.
XX
PT   Nucleic acids containing electron-transfer group, useful as labels in
PT   hybridization assays, e.g. for genotyping, allowing repeat analyses on
PT   a single surface -
XX
PS   Example 4; Page 120; 159pp; English.
XX
CC   The present invention relates to a composition comprising two nucleic
CC   acids each containing an electron-transfer group (ETM) having
CC   different redox potentials. The invention is used for electronic
CC   detection of nucleic acids, especially of substitutions (mismatches)
CC   and single-nucleotide polymorphisms, e.g. for genotyping,
CC   monitoring gene expression.
XX
SQ   Sequence 244 BP; 19 A; 9 C; 12 G; 10 T; 194 other;


  Query Match             12.6%;  Score 57.2;  DB 22;  Length 244;
  Best Local Similarity   7.5%;  Pred. No. 7.8e-05;
  Matches   17;  Conservative  138;  Mismatches   71;  Indels    0;  Gaps    0;

Qy    128 ccttgttactggaatagttgtggaaattgtagttcatagagtgtcaaactttcttcatgg 187
          |||  ||  |||  |  ||    |:::: :: :: ::: : : : ::: ::: :: ::
Db    226 CCTCATTGATGGTGTCTTTTAACAWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 167

Qy    188 aaatattaggtttaagttaacaactggcttactaagcttttattcacatcttaattttac 247
          ::::::::  ::::: :::: :: :   ::: :::  :::::: : :: ::::::::::
Db    166 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 107

Qy    248 cccattttgttaagaatatactctttcagtctctccactatatctgtttaatactatgta 307
            ::::: :::: :::::: : ::: : : : :  : ::::: : ::::::: ::: ::
```

```
Db    106 WGWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 47

Qy    308 accaacaatattcatgtcacaaccagaatcaatcttttactgaaca 353
          :  :: :::::: :: : : ::  : ::: ::: ::::::||| | |
Db     46 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWCTGTAGA 1


RESULT  14
AAF58238
ID   AAF58238 standard; DNA; 244 BP.
XX
AC   AAF58238;
XX
DT   24-APR-2001  (first entry)
XX
DE   Oligonucleotide D1250:D1102.
XX
KW   Electron-transfer group; ETM; mismatch; genotyping;
KW   gene expression; ss.
XX
OS   Synthetic.
XX
PN   WO200107665-A2.
XX
PD   01-FEB-2001.
XX
PF   26-JUL-2000; 2000WO-US20476.
XX
PR   26-JUL-1999;   99US-0145695.
PR   17-MAR-2000; 2000US-0190259.
XX
PA   (CLIN-) CLINICAL MICRO SENSORS INC.
XX
PI   Umek RM;
XX
DR   WPI; 2001-159728/16.
XX
PT   Nucleic acids containing electron-transfer group, useful as labels in
PT   hybridization assays, e.g. for genotyping, allowing repeat analyses on
PT   a single surface  -
XX
PS   Example 4; Page 120; 159pp; English.
XX
CC   The present invention relates to a composition comprising two nucleic
CC   acids each containing an electron-transfer group (ETM) having
CC   different redox potentials. The invention is used for electronic
CC   detection of nucleic acids, especially of substitutions (mismatches)
CC   and single-nucleotide polymorphisms, e.g. for genotyping,
CC   monitoring gene expression.
XX
SQ   Sequence 244 BP; 19 A; 9 C; 12 G; 10 T; 194 other;


  Query Match             11.7%;  Score 53.2;  DB 22;  Length 244;
  Best Local Similarity   3.5%;  Pred. No. 0.00067;
  Matches    7;  Conservative  135;  Mismatches   58;  Indels    0;  Gaps    0;

Qy    130 ttgttactggaatagttgtggaaattgtagttcatagagtgtcaaacttttcttcatggaa 189
          :: ::: :  :::: :: :  ::::: :: :: ::: : : : ::: ::: :: ::  ::
Db     11 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 70

Qy    190 atattaggtttaagttaacaactggcttactaagcttttattcacatcttaattttaccc 249
          ::::::  ::::: :::: :: :   ::: ::: |::::::: : :: :::::::::
Db     71 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWcWWWWWWWWWWWWWWWWWWWWWWWWW 130

Qy    250 cattttgttaagaatatactctttcagtctctccactatatctgtttaatactatgtaac 309
          :::::  :::: :::::: : ::: : : : :  : ::::: : ::::::: ::: :::
Db    131 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 190

Qy    310 caacaatattcatgtcacaa 329
          :: :::::: :||| | ||
Db    191 WWWWWWWWWWWWtgttaaaa 210


RESULT  15
AAF22303
ID   AAF22303 standard; DNA; 611590 BP.
XX
AC   AAF22303;
XX
DT   20-MAR-2001  (first entry)
XX
DE   Arabidopsis thaliana chromosome 2 centromere.
XX
KW   Centromere; michrosome; vector; ds.
XX
OS   Arabidopsis thaliana.
XX
PN   WO200055325-A2.
XX
PD   21-SEP-2000.
XX
PF   17-MAR-2000; 2000WO-US07392.
XX
PR   18-MAR-1999;   99US-0125219.
PR   01-APR-1999;   99US-0127409.
PR   18-MAY-1999;   99US-0134770.
PR   13-SEP-1999;   99US-0153584.
PR   17-SEP-1999;   99US-0154603.
XX
PA   (UYCH-) UNIV CHICAGO.
XX
PI   Preuss D,  Copenhaver G,  Keith K;
XX
DR   WPI; 2000-587529/55.
XX
PT   Recombinant DNA construct comprising a plant centromere, useful for
PT   producing stably inherited michrosomes which can serve as vectors for
PT   the construction of transgenic plant and animal cells  -
XX
PS   Claim 45; Page 820-959; 1449pp; English.
XX
CC   The present invention relates to a recombinant DNA construct of a plant
CC   (Arabidopsis thaliana) centromere. The constructs are useful for
CC   producing stably inherited michrosomes which can serve as vectors for
CC   the construction of transgenic plant and animal cells expressing
CC   selected proteins such as hormones, enzymes, interleukins, clotting
CC   factors, cytokines, antibodies, and growth factors.
XX
SQ   Sequence 611590 BP; 181893 A; 124460 C; 120254 G; 184983 T; 0 other;


  Query Match              9.5%;  Score 43.2;  DB 21;  Length 611590;
  Best Local Similarity   53.6%;  Pred. No. 0.45;
  Matches   90;  Conservative    0;  Mismatches   78;  Indels    0;  Gaps    0;

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